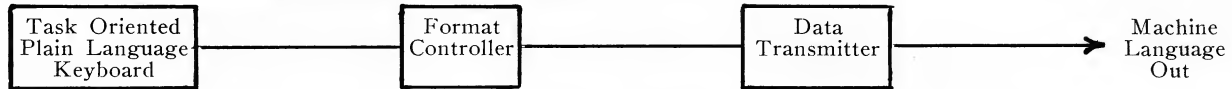# Message ComposeR

BY
NORTH ELECTRIC

Message ComposeR is the name of a family of low cost devices which allow unskilled, untrained users to communicate directly with complex data processing systems.

- By conversion of the users task-oriented input data to machine language suitable for wire transmission

- By providing terminal hardware for a voice or other audible response to the machine language message transmitted

This is a functional diagram of a Message ComposeR

| Task Oriented Plain Language Keyboard | → | Format Controller | → | Data Transmitter | → Machine Language Out |

Task Oriented Keyboard forces accurate entry of up to 200 alphabetic or numeric digits

- By physical separation of message fields

- By associative labeling of message elements

- By allowing complete freedom of order of entry of message elements

- By allowing an element-by-element review of the message after composing and before transmission

- By eliminating need to re-enter semi-fixed message elements

Format Controller forces correct message format

- By automatic interleaf of SOM, EOM address, signature, and interfile separators

- By programming message elements in whatever order the down-line station demands
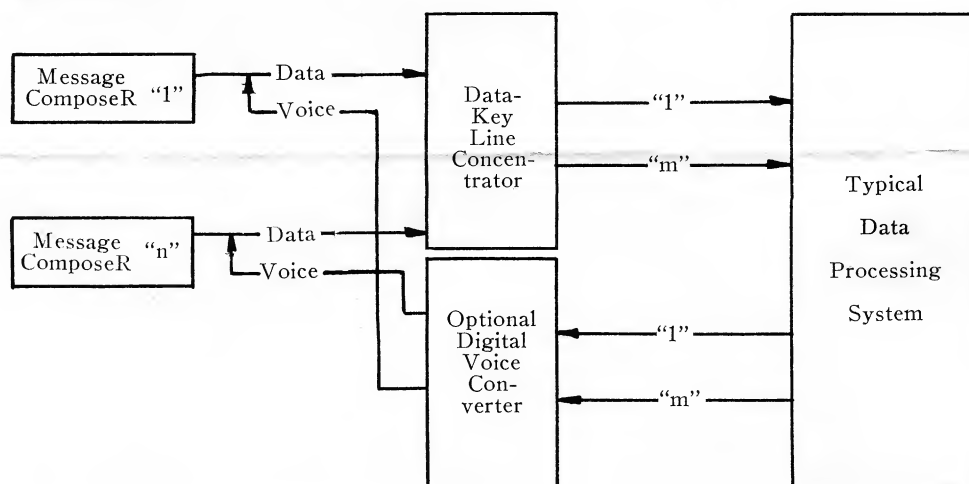
Data Transmitter increases system realibility by providing

- A comm system oriented mode of tone data transmission

- Redundant coding of data transmitted

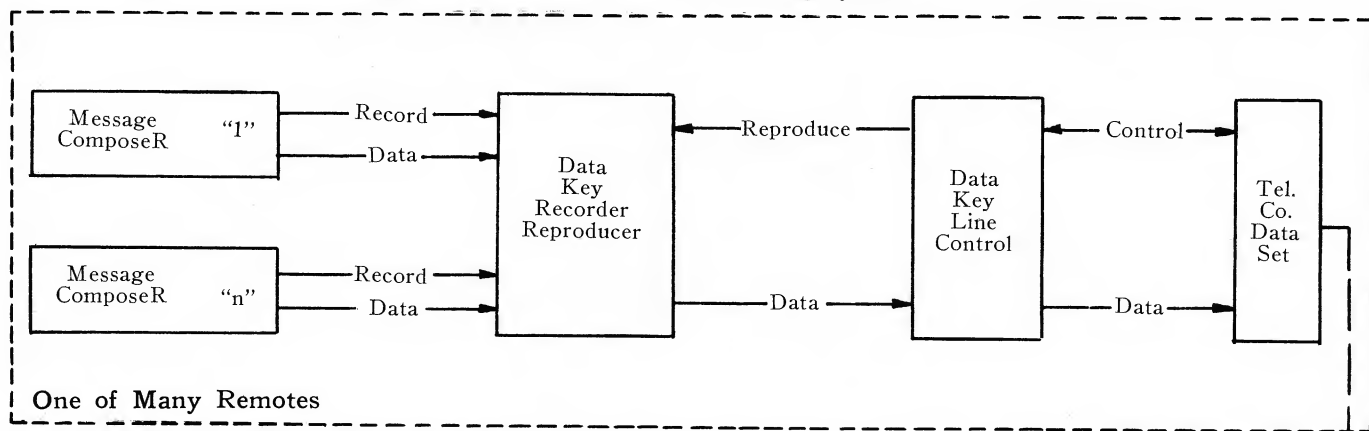**System Design allows use of auxiliary inputs**

- Message counters can automatically insert message serial numbers

- Digital clock can insert time

- Card reader can insert fixed data

- Externally controlled event counters can be sensed automatically or read and re-entered manually.

Here is a typical application of **Message ComposeRs** for production control, combined with a **Data Key** system to allow department foreman to input manufacturing data and to allow stock clerks to input stock receipt and withdrawals
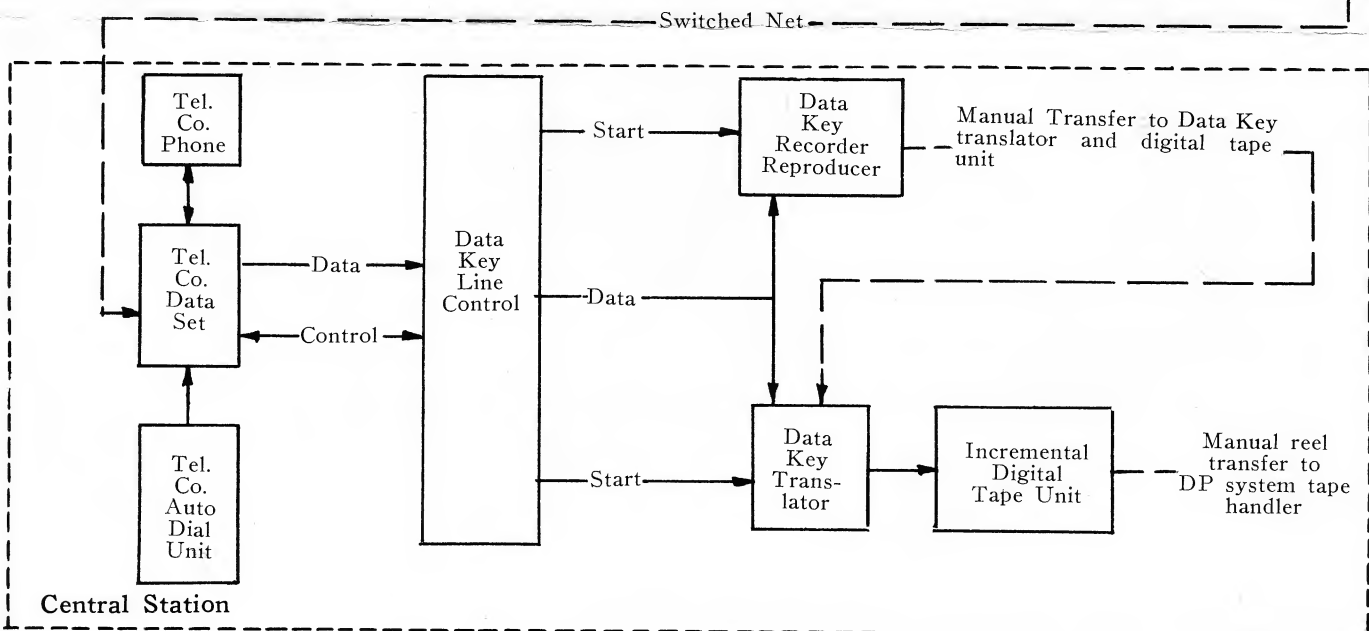

1. User sets up message and depresses bid key

2. Line concentrator accepts bid, seizes idle trunk to D.P. system and transmits a start signal to Message ComposeR

3. Message ComposeR transmits data through to D.P. system

4. On completion of message or of automatic voice reply, line concentrator dis-connects automatically.

Here is a low cost system which allows branch stores to record sales and merchandise receipts, for un-attended after-hours interrogation by a central data processing system.

One of Many Remotes

Central Station

1. Central unit polls remotes via dial network.

2. Remote station Line Control answers call and transmits stored data through Line Control over switched net to central station.

3. End of data or lack of data at remote causes Line Control at both stations to go on-hook ready for the next call.

Message ComposeR is compatible with telephone company technical practices and can use local or long distance circuits under full period, toll, or WATS tariffs.

Typical Retailing and Wholesaling applications of Message ComposeR are for stock reordering, and avail-ability query, for credit status checking and for entry of billing data.

Typical Industrial applications of Message ComposeR are for production and stock control.

Typical Public Utility applications of Message ComposeR are for account query and for recording of cash receipts at bill payment agencies.

Message ComposeRs can be supplied as components of systems manufactured by others or as integral parts of a complete North Electric DATA KEY system.

TECHNICAL SPECIFICATIONS

TONE SIGNALLING FREQUENCIES

The digits 0-9 and the control functions 11-16 are each defined by a unique combination of two of the following eight frequencies, one selected from the low group, one selected from the high group.

Low Group	High Group
697 cps	1209 cps
770 cps	1336 cps
852 cps	1477 cps
941 cps	1633 cps

The specific frequency combination which defines each digit or function is determined by whichever of 256 coding options the user selects. On special order an external coding plug can be supplied to allow the user to provide a system which cannot be entered by standard pushbutton telephone systems.

Message ComposeRs are available on special order with other tone frequency combinations.

Power Supply Internal	110 VAC $\frac{1}{4}$ amp internal rectifier. 48, 24, or 12 V telephone battery may also be used.
Output Characteristics	Either switch closures to an external data set, or tone data directly to a telephone line or local recorder.
	600-900 ohm telephone line may be connected directly.
	Message ComposeR can provide approximately 1 volt of composite tone signal to a 600 ohm resistive load.
Data Output Rate	Dependent on circuit to which connected, 10, 20, and 30 characters per second.
Output Codes	Tone Output— 2-out-of-8 or 2-out-of-6 standard telephone tone dial system coding.
	DC Output Closures — 2-out-of-8, 2-out-of-6, 2-out-of-5, BCD, ASCII.

NORTH ELECTRIC

ELECTRONETICS DIVISION · GALION, OHIO

NORTH ELECTRIC COMPANY

T   NELSON
SYSTEMS CONSULT
BOX 1546
POUGHKEEPSIE NY

Dear Sir:

Thank you for your interest in Data-Key systems.

Data-Key is the name North gives to a family of low cost systems custom-assembled from standard modular telephone components.

Message ComposeR is the member of the Data-Key family specifically designed to allow unskilled operators to gain controlled access to sophisticated data processing systems.

Message ComposeR allows its operator to enter, then to cross-check his data, then to bid for a communications circuit, and to transmit his message at the highest entry rate which the communications circuit will permit.

Message ComposeR also provides a means for punched card or tape entry of data and provides a means for a tone or automatic voice acknowledgement to be returned to the operator.

Manual entry Message ComposeRs in quantities of ten units or more sell for less than $400. Card entry units for less than $600.

Message ComposeR is usable directly on private leased wire circuits or over the AT&T switched net in conjunction with a 401A or other character parallel data set.

Please write or call me at your convenience if you would like to discuss the application to your data problems of Message ComposeR or other members of the Data-Key family.

Yours very truly,

J. H. Nestor
Assistant Sales Manager

Enclosure: Message ComposeR Brochure